Annual Examination, 2021 B.C.A. III (New Course)

B.C.A.-304

Paper IV

(Software Engineering)

Time : 3 Hours] [Maximum Marks : 80

Note : Attempt any **two** parts from each unit. All questions carry equal marks.

Unit I

- 1. (a) What are software development paradigms?

 Describe each in detail.
 - (b) Explain in brief software requirements specification standards.
 - (c) What do you mean by partitioning and projection?Explain it in brief.

Unit II

2. (a) Explain the concept of Coupling and Cohesion in software design. Discuss the ideal requirement of Cohesion and Coupling for a good software design.

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- (b) What are the differences between Process oriented design and Data oriented design? Explain it. 8
- (c) Write the short notes on the following:
 - (i) Object oriented design,
 - (ii) Design Documentation Standards.

Unit III

- **3.** (a) What are the role of case tools? Explain the relevance of case tools.
 - (b) What are the differences between Data flow diagram and Entity relationship diagram? Explain it.

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- (c) Write the short notes on the following :
 - (i) Re-engineering legacy systems.
 - (ii) Coding standards.

Unit IV

- **4.** (a) What do you mean by system testing? Explain any two system testing. **8**
 - (b) Define the mechanism of cost estimation for a Software project. Explain the COCOMO model.
 - (c) Write the short notes on the following:
 - (i) Rayleigh curve,
 - (ii) Debugging and reliability analysis.

Unit V

5. (a) What do you mean by work background structures of project management? Explain it. 8

- (b) What are the differences between software design and Project planning? Explain it.
- (c) Write the short notes on the following:
 - (i) Project Monitoring and Controls,
 - (ii) Integrating Software.

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